

REMARKS

Reconsideration of the present application is respectfully requested. Claims 1-28 have been canceled. Claims 29-54 are newly added. No new matter has been added.

Claims 24-28 were withdrawn from consideration as being directed to a non-elected claim group after restriction requirement. Claim 9 was objected to as containing an informality. Claims 1 and 16 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Claims 1, 9 and 16 were rejected under 35 U.S.C. § 112, second paragraph, as being an indefinite. Claims 1-4, 6-8, 16-19 and 20 1-23 were rejected under 35 U.S.C. § 101 as allegedly lacking patentable utility. Claims 1-23 were rejected under 35 U.S.C. § 103(a) based on U.S. Patent no. 5,146,540 of Natarajan ("Natarajan") in view of U.S. Patent Application Publication no. 2004/0098363 of Anglin et al. ("Anglin").

All of the objections and rejections are believed to be moot in view of the cancellation of the original claims. Nonetheless, to the extent the examiner may consider the same objections/rejections against the new claims, Applicants will address those rejections below in order to expedite prosecution.

I. Restriction/Election

Applicants affirm the election of the group I claims (1-23). Those claims have been canceled, however, new claims 29-54 are consistent with the elected claim group.

I. Claim Objection

The objection to claim 9 is moot in view of the cancellation of the claim.

III. Section 112(1) Rejection

Claims 1 and 16 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. The examiner states (Office Action, p. 4.):

In particular the examiner is not certain how the applicant determined a first and a second paths. The disclosure does not clearly show how such a determination takes place. For instance the figure 3C, shows a tree divided into two sub-trees, if those two "paths", mainly elements 372 and 374 are scanned by two different agents, then what happens to the parent node, that does not belong to any of the sub-trees? Furthermore, how does the applicant decide which sub-trees should be processed by which agent, is it random or predefined? That information is essential to fully understand the claimed invention. Since entire invention is dependent upon this determination, the remaining steps, following the determination step, could not be performed.

First, the "determining" steps which the examiner refers to are not essential or important to the present invention and therefore are not recited in the new claims, rendering this rejection moot.

Second, Applicants respectfully submit that this rejection is not well-founded, in that it appears the examiner did not read Applicants' specification carefully.

Applicants' specification explicitly states:

A system administrator can maintain the filer, ensuring that the filer continues to have adequate free space, that certain users are not monopolizing storage on the filer, etc. A Multi-Appliance Management Application (MMA) can be used to monitor the storage on the filer. (Specification, para. [0004].)

• • •
The MMA controls one or more agents which perform a file walk of the filers. The MMA may divide the directory structure of a filer into multiple paths, so that more than one agent can perform file walk of a single filer. (Specification, para. [0023].)

• • •
An administrator can determine the paths 372 and 374 based on the approximate number of files located within a specific subdirectory. (Specification, para. [0036].)

Applicants respectfully submit that the above-quoted disclosure is more than adequate to support the previously recited "determining" steps and enablement of the claimed invention overall. Furthermore, Applicants respectfully submit that even without the above-quoted disclosure, anyone of ordinary skill in the art would quickly realize, from reading Applicants' specification, that there are various possible ways of determining which path/subtree/subset/etc. is assigned to each particular agent. For example, anyone of ordinary skill in the art and would realize that an agent can be assigned a particular path/subtree/subset/etc. manually (e.g., by a storage network administrator using a management application), or it could be done automatically (e.g.,

by the management application or even the agents themselves). How to accomplish this is well within the level of skill of the person of ordinary skill in the art.

As to the Examiner's question about how the parent node (root node) is handled, Applicants respectfully submit that this also is not an important aspect of the claimed invention. In practice, the root node of a storage server rarely contains information of interest; rather, it is the directories and subdirectories stored under the root that normally contain the important information. Further, how to handle or (as is more likely the case) ignore the root node of a tree is a very simple task for a person of ordinary skill in the art. Such a person would quickly realize, from reading Applicants' specification, that there are various possible ways of doing this and would be capable of identifying those ways with little or no experimentation.

For the above reasons, Applicants respectfully submit that the rejection under section 112, first paragraph, was improper.

IV. Section 112(2) Rejection

The rejection under section 112, second paragraph, is moot in view of the cancellation of the rejected claims.

V. Section 101 Rejection

Claims 1-4, 6-8, 16-19 and 20 1-23 were rejected under 35 U.S.C. § 101 as allegedly lacking patentable utility. This rejection is also moot in view of the cancellation of the

rejected claims. Nonetheless, Applicants would like to point out that the new independent claims each explicitly recite some form of *storage facility* to store the collected information. In addition, claim 1 further recites “storing the information about the first subset and the information about the second subset in a physical storage facility *which is accessible by an application for display to a user*” (emphasis added). Thus, Applicants respectfully submit that all of the new claims recite patentable subject matter.

VI. Section 103 Rejection

Claims 1-23 were rejected under 35 U.S.C. § 103(a) based on U.S. Patent no. 5,146,540 of Natarajan in view of Anglin.

New claim 29 recites:

29. (New) A method comprising:
using a **first agent** to scan a first subset of a **hierarchical structure of data maintained by a storage server**, to collect information about the first subset;
using a **second agent** to scan a second subset of the **hierarchical structure of data maintained by the storage server**, to collect information about the second subset;
storing the information about the first subset and the information about the second subset in a physical storage facility which is accessible by an application for display to a user. (Emphasis added.)

A. Not all claim limitations disclosed in cited combination

As explained below, no combination of Natarajan and/or Anglin discloses *all of the limitations* of claim 29. Specifically, Natarajan and Anglin do not disclose or suggest,

Application No.: 10/798,987

either individually or in combination, using a plurality of agents to scan a plurality of subsets of a hierarchical structure of data maintained by a storage server, to collect information about the subsets, as recited in claim 29.

Natarajan discloses the general concept of a "tree"; however, that is the extent of Natarajan's relevance to the present invention. There is no suggestion in Natarajan that such a tree may represent *a hierarchical structure of data maintained by a storage server*. Natarajan does not disclose, suggest, or have anything to do with storage servers, and certainly not scanning a hierarchical structure of data maintained by storage server to collect information about it.

Anglin, on the other hand, does disclose a hierarchical structure of data maintained by a storage server; however, Anglin does not disclose or suggest *using a plurality of agents* to scan a plurality of subsets of such a hierarchical structure, to collect information about the subsets.

Therefore, no combination of Natarajan and/or Anglin discloses *all of the limitations* of claim 29, particularly, using a plurality of agents to scan a plurality of subsets of a hierarchical structure of data maintained by a storage server, to collect information about the subsets, as recited in claim 29. Consequently, claim 29 cannot be obvious based on any combination of Natarajan and/or Anglin.

Claim 29 and all claims which depend on it are therefore patentable over the cited art, for this additional reason.

The other independent claims include limitations similar to those in claim 29 discussed above and are therefore patentable along with their dependent claims for similar reasons.

Claim 48

Claim 48 further recites that the first and second agents use *different file systems*, but that the information about the first subset and the information about the second subset are stored *in the same format*. The cited references are not seen to disclose these limitations. Therefore, claim 48 and all claims which depend on it are thought to be patentable over the cited art for this additional reason.

B. Non-analogous art

Furthermore, the cited combination of Natarajan and Anglin is improper, because Natarajan is *non-analogous art*. A prior art reference is analogous if the reference is in the field of applicant's endeavor or, if not, the reference is reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

Applicants' invention relates to networked storage systems and more particularly to a method and apparatus for collecting and reporting data pertaining to information stored by a storage server.

Natarajan, on the other hand, relates to a technique for solving “constraint-satisfaction problems” and has nothing to do with storage systems. Natarajan, col. 1, lines 16-18. Constraint-satisfaction problems are a class of problems that “consist of a set of variables, each of which must be assigned a value, subject to the particular constraints of the problem.” Wikipedia.org, “Backtracking”, downloaded from http://en.wikipedia.org/wiki/Backtracking_search on 12/21/2006 (copy enclosed); see also Natarajan, col. 1, lines 18-22. *Backtracking* is a technique for solving this type of problem, which “attempts to try all the combinations in order to obtain a solution.” Wikipedia.org, “Backtracking”.

Natarajan discloses a technique for searching a “backtrack search tree”. However, a backtrack search tree does *not* represent a *hierarchical structure of data maintained by a storage server* insofar as Natarajan discloses. It is Applicants’ understanding that, in the context of Natarajan’s disclosure and in the field of constraint-satisfaction problems generally, the nodes in a backtrack search tree represent *possible solutions*, i.e., *values of variables*, for a particular constraint-satisfaction problem. See Wikipedia.org, “Backtracking”.

Natarajan does not disclose, suggest, or have anything to do with *storage servers*, and certainly not collecting and reporting data pertaining to information stored by a storage server. Natarajan, therefore, is not in the field of Applicants’ endeavor or even pertinent to the particular problem with which the inventors were concerned. Hence,

Natarajan is *non-analogous art*. Thus, all pending claims are patentable over the cited art, for this additional reason.

Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

Conclusion

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

If there are any additional charges/credits, please charge/credit our deposit account no. 02-2666.

Respectfully submitted,

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